

## 52. Monitoring the quality of sliced pork ham packed in different modified atmospheres during 45 days of storage

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This study, financed by EXTRASLICED45 project, promoted by *Primor Charcutaria-Prima S.A.* and focused on extra-sliced pork ham, aims to use different modified atmosphere packaging (MAP) as a preservation technique for extending the lifetime of the product. In this study, physical, chemical, microbiological and organoleptic properties of sliced pork ham, packaged in MA, were monitored during 45 days of storage at 5 °C. Pork ham samples were packed in four different gas mixtures of 10, 30, 40 and 60% of CO<sub>2</sub> (N<sub>2</sub> for balancing), in thermoformed trays of APET/EVOH/PE film sealed with PE/PVDC. During the storage time the monitoring of the evolution of the gas mixture composition, pH, *water activity (aw)*, moisture content, colour parameters and firmness of samples was performed. Searching for pathogenic (*Salmonella* spp., Enterobacteriaceae, *Escherichia coli*, *Listeria monocytogenes* and coagulase-positive staphylococci), total viable counts at 30 °C and lactic acid bacteria (LAB) was performed. For sensory evaluation, a trained panel of 6 elements, conducted a quantitative descriptive analysis (QDA®). The previously defined attributes were: brightness, colour, aroma, overall appearance, flavour, texture (hardness and cohesiveness) and salty taste, using a 6-point scale. The panel was also asked about their perception related to the overall appearance and off- flavours defects. The results of instrumental analysis of texture and colour, and the chemical parameters showed no significant differences over the time of storage and between MAP. The results of analysed microbiological parameters were satisfactory (according to HPA) and no pathogenic were detected. The principal components analysis highlighted the existence of correlations between the studied parameters. The panel detected some differences between the short and long-term stored ham samples but those differences were no considered defects.

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